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Fourteen superior undergraduates with interest in and potential for educational research were chosen to participate in a 1-year undergraduate training program designed to provide them with an introduction to specialization in educational research. During their senior year they participated in an intensive 11-week summer session, and weekly seminars and field experiences in various research projects extended throughout the academic year. Nine hours credit was awarded for the modified courses which included research design, statistics, and measurement and evaluation. An interdisciplinary approach featured consultants, team teaching, field trips, supervised research experiences, and independent study. Subjective reactions of the faculty, consultants, and others working with the program were generally favorable. Trainee reactions reflected a valuable experience. Two trainees have received grants for 3-year doctoral training programs in educational research, 1 will serve as a research assistant to an educational study while doing graduate work, and 2 have accepted positions as full time evaluators for a Title III project. The director recommends that programs of this nature be continued. Trainee evaluation rating forms are included. (JS)

BR-6-1800
PA-24

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FINAL REPORT

Project Number 6-1800 PA 24

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NORTHERN ILLINOIS UNIVERSITY UNDERGRADUATE EDUCATIONAL RESEARCH TRAINING PROGRAM

June 28, 1967

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June 6, 1966-June 12, 1967

Project Number 6-1800
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Joseph R. Ellis, Director

June 28, 1967

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NORTHERN ILLINOIS UNIVERSITY

DEKALB, ILLINOIS

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INTRODUCTION

The Northern Illinois University Undergraduate Educational Research Training Program was conceived as being a two year training program for outstanding senior students with an interest in teaching or some other aspect of education. It was planned that the program begin on June 7, 1966, and continue until June 6, 1968. Due to a reduction in the amount of funds available in the U. S. Office of Education, the second year of the Program was suspended. It is hoped that the Program will be continued for 1968-1969.

I. Significance of the Training Program to Education

The program was in harmony with the purposes underlying the Educational *Research Training Program* in Title IV, section 2 (b) of P. L. 89-10 in that its ultimate objectives were: (1) to improve the quality of research in the area of education, and (2) to increase the supply of research personnel in the field of education.

The significance of the needs served by the program were themselves reflected in the expanded research activity in education today and by the correspondingly enlarged demand for skilled research workers. Indirectly, its importance for education has been indicated by the very nature of the recent emphasis and support for educational research expressed by the Eighty-ninth Congress in passing the legislation facilitating the program.

The coordination and direction of research at the level of the local school system is an increasingly important and demanding function in the future pattern of public education, while the role of research in the professional performance of the classroom teacher (both as consumer and producer) appears certain to occupy more of his interest, time

and productivity. Whether one adheres to the extreme views on the preparation of educational researchers stated by David Ryans[1] with emphasis on highly specialized preparation, or to the views expressed by Stephen Corey[2] concerning involvement of teachers in action research, or takes a position somewhere between them, there is near concensus regarding the importance of research in education and the need for some specific preparation in planning, conducting, and interpreting the results of studies designed to provide definitive answers to vital educational questions.

The unique needs, purposes, and functions of this undergraduate educational research training program are justified in part by the fact that the undergraduate program for preparation of teachers on most college campuses provides the future teacher with very little, if any, involvement in any kind of research and especially with very little appreciation, knowledge, skill, and competence in educational research. This is generally true regarding both the roles of research consumer and research producer. This situation would appear to be especially true for the undergraduate students at Northern Illinois University.

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[1] Ryans, David G., "The Preparation of Educational Research Workers." Journal of Educational Research, 49: 195-202, November, 1955.

[2] Corey, Stephen M., Action Research to Improve School Practices. New York: Teachers College, Columbia University, 1953, 161 pp.

II. Objectives of the Training Program

General purposes:

1. To improve the quality of research in the area of education.
2. To increase the supply of competent research personnel in the field of education.
3. To introduce educational research techniques and to develop research competencies for a selected group of undergraduate students.

Specific purposes were to help the participating undergraduates:

1. gain insight as to the origin, development, and present status of graduate instruction and gain a basis in experience for making decisions regarding advanced work and specialization in educational research,
2. become familiar with the professional journals, books and other research materials in the student's area of specialization and in the general field of education,
3. gain an understanding of the basic research methods and techniques, and to know how these might be used in solving research problems in education,
4. know something of the points of view and major contributions of certain leaders in the field of educational research,
5. become familiar with the most important movements in educational research at the present and identify trends in the area, problems, needs and opportunities and sources of assistance,
6. appreciate the importance of research in the progress of man,
7. establish a research philosophy which is objective, analytical and unbiased,
8. gain a respect for the research efforts of others,
9. take a research point of view into their studies and professional activities,
10. appreciate and encourage academic freedom and the pursuit of professional learning and inquiry,
11. learn how to use the library and other educational facilities in carrying out research,

12. be able to analyze, summarize, and interpret research writings in the student's particular area of specialization, and in the general field of education,

13. attain reasonable skill in planning and carrying out a research project, and in writing a report on the findings in accordance with an accepted form and style,

14. be able to attack a research problem objectively and scientifically using understandings and skills from research design, statistics, and educational measurement,

15. be able to apply the knowledge, attitudes and skills learned in this program to the student's own area of professional specialization.

III. Functions of the Project.

1. To stimulate research and a research point of view in undergraduate teacher education programs.

2. To identify and encourage outstanding undergraduate students who show interest and promise for educational research.

3. To provide a systematic and first-hand experience in educational research for outstanding students in teacher education.

4. To provide a laboratory and ensuing model for the development of courses and/or programs in educational research for undergraduates.

5. To provide the participants with the opportunity to be involved actively in research projects and to engage in independent study.

6. To provide an interdisciplinary approach to the study of educational research.

IV. Personnel of the Program.

The Program was directed by Joseph R. Ellis and the Associate Director was Robert A. Rosemier, both Associate Professors of Education. In keeping with the planned inter-disciplinary approach, a variety of human resources were involved in the various aspects of the Program.

TRAINEE PARTICIPANTS

Fifteen trainees and two alternates were selected in early May of 1966. Alternates received no financial support but participated fully in and assumed all responsibilities of the Program. When two trainees withdrew from the Program at the close of the fall semester, both alternates became trainees and completed the Program. An effort was made to keep the group small enough to provide effective individualized instruction and also an effort was made to provide a group large enough and with a sufficiently varied background to facilitate a stimulating interaction. Fourteen trainees completed the one year program.

I. Criteria for Eligibility for Participation in the Program.

The applicant was expected to present:

1. Fulltime undergraduate classification at Northern Illinois University with first semester senior standing and completion of junior courses in education with a mark of B or above for those in education.

2. A favorable impression in two screening interviews.

3. A recommendation from the major advisor.

4. A recommendation and rating from the junior block (education course) instructor, for those having taken this course.

5. A minimum University grade point average of 2.5.

6. Commitment to the program for one summer of intensive work and the following academic year with a minimum of six to eight hours per week devoted to the program including attendance at the prescribed major functions of the program. The applicant agreed not to become employed during the summer session.

7. An indication to seek a graduate degree in either education or a closely related field.

8. Achievement of satisfactory scores on appropriate standardized tests. e.g. The quantitative section of the American College Test or the Doppelt Math Reasoning Test.

Selection Process.

Trainee selection was made by the program's Director and Associate Director. Selection was made from among those applicants who at least met the minimum requirements set forth in the criteria above. Consideration was given to the inclusion of trainees with different academic majors as well as to those who plan to work at different educational levels. Application was open to all first semester seniors regardless of their major area.

Some Facts About the Trainee Group

The group's average age was twenty-one.

There were seven girls and eight boys.

There were twelve trainees enrolled in N.I.U.'s teacher education program and three non-education students.

Major areas of specialization were:

Chemistry	.- (1)
Elementary Education	- (5)
English	- (1)
Math	- (3)
Physical Education	- (1)
Psychology	- (1)
Science (General)	- (1)
Special Education	- (2)

METHOD: THE TRAINING PROGRAM

The Program extended over a twelve month period and included an intensive eleven week summer session followed by weekly seminars and supervised direct research experience throughout the academic year. The courses, seminars and other aspects of the program were modified to serve the uniqueness of the trainee group and enrollment was limited to the fifteen trainees and two alternates. From time to time consultants, specialists, and other resource persons were called upon to assist with the various activities; however, the courses and seminars were taught by either the Director or Associate Director and all phases of the program were under their supervision. (See the Schematic Summary of the Program.)

1. Courses. (Provided in the eleven week summer session)

Education 503A: Introduction to Educational Research
(3 semester hours of graduate credit)

"A basic course in methods of research in education: the planning of a research study, the developing of skills in problem identification, data collection, analysis, interpretation, and preparation of research reports."
Instructor - Joseph R. Ellis

Education 508: Educational Statistics
(3 semester hours of graduate credit)

"Introductory course to provide students with the techniques necessary for understanding, analyzing, and interpreting data. Grouping of data, graphical representation, measures of central tendency, variability, relationship, the normal distribution, standard score and percentile interpretation, regression equation, and the reliability of statistical measures."
Instructor - Robert Rosenier

Education 510: Educational Measurement and Evaluation
(3 semester hours of graduate credit)

"Modern concepts of evaluation; construction and evaluation of evaluative instruments; use of standardized tests and scales; and procedures of evaluating relatively intangible outcomes."
Instructors - Rosenier and Ellis (Team Teaching)

II. Seminars. (Provided weekly throughout the summer and academic year)

The Seminar was under the supervision of the Program Director and drew upon available related resources from the various Departments and divisions of the University and from sources available in the northern Illinois area. The seminar allowed for an exchange of ideas between and among trainees, N.I.U. faculty, consultants, and other resources personnel and facilitated an interdisciplinary point of view and approach to educational research as well as provided continuity to the program. The seminar met weekly during the summer and during the academic year the seminar was held on Saturday mornings for a period of two hours. Attendance was required and no college credit given.

III. Field Trips. Frequent group visits were made to observe and to become informed about research facilities and activities located:

1) on the N.I.U. campus,
2) in school systems in northern Illinois that are involved in research,
3) in business, industrial, and scientific establishments in the Chicago and the northern Illinois area.

IV. Attendance at Related Professional Meetings.

Trainees attended as a group and as individuals, related professional meetings held on the N.I.U. campus and in other cities. The meetings of the American Educational Research Association and the Northern Illinois Association for Educational Research were among the meetings attended by members of the group and which provided enrichment for the program.

V. Direct Research Experience.

Commensurate with his or her general level of development and research competency, each trainee became involved actively and responsibly in direct research efforts. These experiences occurred through both of the following approaches:

1. Independent Study - Under the direction of the Program Director and/or an N.I.U. faculty member, each trainee was encouraged to engage in independent study which is unique to his or her interests, ability and level of development. For some this involved the investigation of an educational problem and included the development of a research design, the execution of the study, and the development of competencies in the treatment, processing and interpretation of data and the writing of the research report. Other projects which promised to promote research competencies but encompassed only a part of the research act were pursued; e.g. projects focusing on data retreival, computer operations, etc.

2. Field Study and Research Apprenticeship - Each trainee became associated in a responsible role with a research activity that was being conducted by an N.I.U. faculty member of an area school.

A formal written report of the trainee's experience in the program including independent study and/or the apprenticeship work was prepared by the trainee two weeks before the end of the program.

VI. Summary of Program Requirements for Trainees.

1. Satisfactory completion of three graduate education courses offered as a part of an intensive eleven week summer session. (9 semester hours of graduate credit.)
2. Attendance at a weekly seminar extending throughout the summer and academic year. (No college credit given.)
3. Spending a minimum of six-eight hours per week during the academic year on program activities.
4. Completion of an approved research proposal and/or a research related project.
5. Responsible participation in a research activity being conducted by an N.I.U. faculty member or area school personnel.
6. Participation in directed field trips and attendance at selected professional meetings.
7. Preparation and presentation of a formal written report of:

   a) the independent study and/or
   b) the participation with N.I.U. faculty or area school in a research activity, and
   c) a comprehensive self-evaluation of the trainee experience.

Schematic Summary of N.I.U. Undergraduate Educational Research Training Program 1966 - 1967

Intensive Eleven Weeks' Summer Program

Graduate Courses:	Credits
*Intro to Ed Research	(3 hrs)
*Ed Statistics	(3 hrs)
*Ed Measurement & Eval	(3 hrs)

Seminar: (weekly)

Interdisciplinary Approach
Consultants

Direct Research Experience:

Guided independent study
Assist N.I.U. faculty with research projects

Field Trips:

Chicago area research facilities
N.I.U. campus facilities
Schools involved in research

*especially modified for the trainees in the program.

Academic Year Program

First Semester	Second Semester
Seminar: (non-credit)	Seminar: (non-credit)
Sat. 9-11:00	Sat. 9-11:00

Consultants and Interdisciplinary Approach

Direct Research Experience:

Guided independent study and Assist N.I.U. faculty with research project

Field Trips and Professional Meetings:

e.g. Area educational, scientific, industrial, and business facilities.

e.g. AERA Annual Meeting
National Council on Meas. in Ed. National Meeting
Am. Psych. Assoc. Midwest Meeting

Related Activities:

Relate preparation in research to other school work including student teaching

Evaluation:

Day long session at NIU outdoor campus. Formal paper as a report of the trainee's individual project.

Guidance:

Help the trainee with educational and professional planning & placement.
Other school work including student teaching.

VII. Facilities and Resources Utilized in the Operation of the Program

Northern Illinois University and the nearby area possess a wealth of facilities and resources that were available and used to add to the effectiveness of the program. These included:

Human resources Used in the Program:

1. N.I.U. education faculty experienced in designing and executing research studies and also experienced in preparing teachers and administrators in research competencies both by teaching and directing theses and dissertations.
2. Faculty from other departments of the University who are competent in research and who are available to assist with various aspects of the program.
3. The Coordinator of Research for the University's laboratory schools.
4. The Director of the University Research Bureau.
5. The Director of the N.I.U. Computer Center.
6. Teachers and administrators in area schools where research interest and activity existed.
7. Persons from business, industry, and science establishments in the DeKalb and Chicago area engaged in research efforts in their respective fields.
8. A human learning laboratory with a variety of apparatus used in educational psychology.
9. A reading clinic with appropriate apparatus and personnel.
10. A guidance laboratory.
11. The N.I.U. Lorado Taft Field Campus, the University's outdoor education facility, was used as a place for meetings and also as a research facility for investigation of problems in outdoor education.

Schools as resources for research:

1. Several schools in the immediate area cooperated with N.I.U. faculty in research projects. Trainees were involved actively in these relationships.
2. Within the University's College of Education is an excellent laboratory school which includes the kindergarten through the ninth grade. One of the major purposes of the laboratory school is to provide a setting for experimentation. This facility was used in a variety of ways.

Library resources available for the program:

1. A library of excellent quantity and quality with an especially strong collection of books and reference materials in education is available. This library was recently approved by the North Central Association and by the National Council for Accreditation of Teacher Education.

2. The Educational Materials Center located in the library.

Data processing facilities available for research:

1. Equipment was used in study of data processing and for placing information on IBM cards.
2. An IBM 1620 computer was used for both demonstration and research.
3. A statistical laboratory was used in skill development and research activity and a number of automatic desk calculators were located.

The Special Education Department was used for research activity by some trainees.

The Chicago area as a resource for the program:

The nearness to a large metropolitan center afforded many opportunities and resources which enriched the program, i.e., a variety of kinds of schools, groups, and educational activities were available for visitations and/or research. Research facilities visited included:

1. Argonne National Laboratory
2. Abbott Laboratories
3. DeKalb Agricultural Association

RESULTS and DISCUSSION:

EVALUATION OF THE PROGRAM

I. Objective Data.

1. The general performance and achievement levels of the Program Trainees in the three formal courses offered were observed to compare very favorably with the performance and achievement of "regular" graduate students who take related courses at Northern Illinois University.
2. Sample products (written research proposals, designs, tests, and reports) of Trainee work were compared with similar products of "regular" N.I.U. graduate students' work and the Trainees' work was judged superior.
3. Fourteen of the seventeen participants who entered the Program completed it. One person withdrew to enter full-time teaching, one withdrew because of a schedule conflict, and the third withdrew for personal reasons.
4. Two Trainees received traineeship grants for three year U.S.O.E. supported doctoral programs in educational research (University of Minnesota and University of Colorado.)
5. One Trainee will remain at N.I.U. for graduate study and work as a Research Assistant with a year-long educational experiment.
6. Two Trainees have accepted full-time employment as Researchers and Evaluators with the Elk Grove Training and Development Center, Elk Grove, Illinois. (A Title III Project.)
7. The remaining nine Trainees have either accepted teaching positions or entered graduate programs. All have indicated that their professional outlook and performance will be influenced greatly by their experience in the Program. Three have indicated plans to specialize in some aspect of educational research within the next few years.

II. Subjective Data.

1. Trainee summary reports indicated that, for most of them, the Program had proved an extremely valuable experience and that most of the Program's goals were achieved.
2. The observations, reports, and informal reactions of N.I.U. faculty and consultants and others who worked with the Program were generally very favorable regarding the quality of trainees and the operation of the Program.
3. Trainee reactions were obtained on a Participant Critique Form (See Appendix A.) While these reactions were favorable and reflected a valuable experience, they provide an important source for decision making regarding program modification.
4. Responses were also obtained from a "Survey of Participant Non-Intellective Reactions to The N.I.U. Undergraduate Educational Research Training Program." (See Appendix B) These responses indicate that the Trainees had positive feelings about their experience in the Program and provide a basis for decision making regarding program modification.

CONCLUSIONS

Throughout the Program the Director held some reservations about the desirability of providing specialized educational research training for undergraduates. Based on the data presented under the Results Section of this report and on his experience with the Program, the following conclusions are made:

I. Providing care is taken in the selection of trainees and individualized guidance and instruction provided, undergraduate students can achieve and derive much value from early specialization in educational research.

II. Undergraduate study of educational research is most meaningful when undertaken at approximately the time when the trainee is involved in philosophy and/or is nearing the study of educational psychology, social foundations of education, and in the student teaching experience.

III. An integration of courses in educational research, statistics, and measurement and evaluation provided a meaningful experience for the trainees as did the inter-disciplinary approach to educational research with the emphasis focused on "education."

IV. Regarding the three general purposes of the program, any evaluation of the first two (to improve the quality of research in education and to increase the supply of competent educational researchers) will be incomplete until the trainees have had an opportunity to make their impact as researchers. The third general purpose (introducing educational research techniques to and developing research competencies in undergraduates) was achieved to a very high degree.

V. The specific purposes of the Program were achieved to some extent by all participants while most achieved them to a very high degree.

VI. The Program provided trainees with an interesting and stimulating study of education.

VII. As is evidenced by their current study and contracts, five of the trainees have made career commitments to the field of educational research.

VIII. The adequate support provided by the U.S.O.E. and the splendid cooperation of many N.I.U. and area research personnel made possible much of the success that the Program may have had.

RECOMMENDATIONS

Based on the conclusions drawn from the one year operation of the N.I.U. Undergraduate Educational Research Training Program, the following recommendations appear warranted:

I. The experience gained and the evaluation results obtained from the operation of the Program should be used to modify the Program.

II. Similar, but somewhat modified programs should be offered for undergraduates at the same level of support and on a continuous basis.

III. The motivation and production record of trainee applicants should be a factor of equal importance to ability and achievement in their selection into the Program.

IV. Enrollment in the Program should be restricted to students with a strong and demonstrated interest in and ability for working with people in organized educational activities.

V. An approach to undergraduate teacher education with emphasis on educational research methodology should be developed and tried as an experiment in the pre-service preparation of teachers.

SUMMARY OF THE REPORT

The Northern Illinois University Undergraduate Educational Research Training Program, supported by the U.S.O.E., functioned from June 6, 1966, until June 12, 1967. Its second year of operations was suspended by the U.S.O.E. because of a reduction in funds to support such training projects. It is hoped that the Program can be resumed in 1968.

The ultimate purposes of the Program was to increase the number of competent educational researchers and thereby improve the quality of educational research. Fifteen superior N.I.U. seniors were selected as trainees during their senior year and provided an intensive eleven week summer session and weekly seminars and field experiences in research during the school year. Trainees received stipends of $75 per week during the summer and $500 for the academic year. The total annual support for the Program was budgeted at $39,750.

Summary of the Program

Intensive 11 wk. Summer Session		Academic Year	
Graduate Courses	Credit	First Semester	Second Semester
Intro Ed Research	(3 s hrs)	Seminar Sat. 9-11	Seminar Sat. 9-11
Ed Statistics	(3 s hrs)	Interdisciplinary Approach	and Consultants
Ed Meas & Eval	(3 s hrs)	Direct Res. Experience	Direct Res. Experience
Seminar (Weekly)	None	Independent Study	Independent Study
Interdisciplinary		Apprenticeship	Apprenticeship
Direct Research Experience		Field Trips and Attendance at Prof. Meetings	
Independent Study & Apprenticeship		Related Activities	Guidance of Trainees
Field Trips		Courses & Student Teaching	Evaluation of the Program

Both objective and subjective evidence indicated that the Program was very successful in achieving its specific purposes of helping trainees develop the desired research attitudes, understandings, and skills. It was felt that progress was made toward achieving the general purposes which can only be assessed when the trainees have had the opportunity to make an impact on educational research.

It was recommended that the undergraduate educational research training programs be continued with modifications indicated by evaluative results under support of the U.S. Office of Education for at least one more year.

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APPENDIX A

Northern Illinois University Undergraduate Educational Research Training Program

June 11, 1966 - June 12, 1967

PARTICIPANT CRITIQUE FORM

DIRECTIONS: Please respond with a word, a phrase or one or more sentences to as many of the following questions as you can. Your frank and honest evaluation can only benefit everyone concerned. Do not identify yourself by name unless you prefer to do so.

1. To what extent were textbooks, references and journals helpful in your attempts to master the content of this session?

2. To what extent did reproduced materials given to you by the staff improve matters?

3. Which features of the meeting rooms were inadequate or not conducive to learning?

4. Which features were especially facilitative in the same regard?

5. Was the summer session too long?

6. In what ways did the "apprenticeship" experience contribute to the program?

7. Were you allowed enough time in which to pursue activities of your own choosing?

8. How did the seminar contribute to the overall program?

9. To what extent did the field trips and professional meetings contribute to the program?

10. Were the individual lectures too long?

11. Were the lectures, field trips and assignments scheduled in an appropriate sequence?

12. Did the content of the lectures and readings presuppose far more or far less previous training than you had?

13. To what extent was the content of the lectures and readings, relevant to what you hoped to accomplish during the program?

14. Did you receive sufficient advanced information on the purposes of the program?

15. Were you adequately oriented in the first sessions as to the structure and desired outcomes of the program?

16. In general, was the program well organized?

17. Were the instructors (Ellis and Rosomier) too inaccessible or unapproachable so that you did not get the individual attention that you desired?

18. Did you have sufficient opportunities to interact with other participants?

19. Were you disappointed in any way with the group of participants?

20. If you had it to do over again would you apply for this program which you have just completed? Yes_____ No_____

21. If a program such as this is held again, would you recommend to others like you that they participate? Yes_____ No_____

22. Do you anticipate maintaining some sort of contact with at least one member of the program's staff and/or trainees? Yes_____ No_____

23. Do you feel that your understanding of educational research design and development has been considerably enriched by this program? Yes_____ No_____

24. Do you feel that this program has made an important contribution to your education? Yes_____ No_____

25. Do you feel that anything has happened during this program to make it more likely that you will follow a career in educational research? Yes_____ No_____

26. Would you say that because of this program you are more able to state a given educational problem in operational form so that it is, if it can be amenable to experimentation? Yes_____ No_____

27. Do you feel that the staff should feel that it has accomplished its objectives during this program? Yes_____ No_____

28. In what way were consultants helpful?

Use the remaining space, if you wish, to give us your ideas on what was wrong with this session, or what was particularly commendable in it, or how it could have been done better. Try particularly to mention items which were not dealt with in the questions on the preceding pages.

APPENDIX B

SURVEY OF PARTICIPANT NON-INTELLECTIVE REACTIONS TO THE NORTHERN ILLINOIS UNIVERSITY UNDERGRADUATE EDUCATIONAL RESEARCH TRAINING PROGRAM

Supported by a Grant from the U.S. Office of Education
June 6, 1966 - June 12, 1967

Do not write your name on these sheets.

The purpose of this instrument is to obtain your response to certain aspects and concepts of this approach to in-service education and dissemination of innovative practices. On each of the following pages you will find two different aspects on concepts to be judged, and a set of scales beneath each concept. You are asked to rate each aspect or concept on each scale in order.

Here is how you are to use the scales:

If you feel that the concept at the top of the page is very closely related to one end of the scale, you should place your check-mark as follows:

Fair _X_ : ____ : ____ : ____ : ____ : Unfair

Fair ____ : ____ : ____ : ____ _X_ : Unfair

If you feel that the concept is moderately related (but not highly related) to one or the other end of the scale, you should place your check-mark as follows:

Strong ____ : _X_ : ____ : ____ : ____ : Weak

Strong ____ : ____ : ____ : _X_ : ____ : Weak

If you consider the concept to be neutral on the scale, place your check-mark in the middle space:

Safe ____ : ____ : _X_ : ____ : ____ : Dangerous

IMPORTANT: (1) Place your check-marks in the middle of spaces, not on the boundaries:

This			Not This	
____ :	_X_ :	____ :	X____ :	____ :

(2) Be sure you check every scale for every concept!
Do not omit any scales.

(3) Never put more than one check-mark on a single scale.

Work at fairly high speed through this rating sheet. Do not puzzle over individual items. Give your first impressions, your immediate feelings about each item. Please do not be careless, however.

PRE

Rosemier

1.	good	___:___:___:___:___	bad
2.	unfriendly	___:___:___:___:___	friendly
3.	stimulating	___:___:___:___:___	dull
4.	positive	___:___:___:___:___	negative
5.	unhelpful	___:___:___:___:___	helpful
6.	right	___:___:___:___:___	wrong
7.	incapable	___:___:___:___:___	capable
8.	unavailable	___:___:___:___:___	available
9.	interesting	___:___:___:___:___	uninteresting
10.	unsuccessful	___:___:___:___:___	successful
11.	prepared	___:___:___:___:___	unprepared
12.	acceptant	___:___:___:___:___	rejecting

Ellis

1.	good	___:___:___:___:___	bad
2.	unfriendly	___:___:___:___:___	friendly
3.	stimulating	___:___:___:___:___	dull
4.	positive	___:___:___:___:___	negative
5.	unhelpful	___:___:___:___:___	helpful
6.	right	___:___:___:___:___	wrong
7.	incapable	___:___:___:___:___	capable
8.	unavailable	___:___:___:___:___	available
9.	interesting	___:___:___:___:___	uninteresting
10.	unsuccessful	___:___:___:___:___	successful
11.	prepared	___:___:___:___:___	unprepared
12.	acceptant	___:___:___:___:___	rejecting

PRE

Consultants and Guest Speakers

1.	good	___:___:___:___:___	bad
2.	useless	___:___:___:___:___	valuable
3.	stimulating	___:___:___:___:___	dull
4.	positive	___:___:___:___:___	negative
5.	unorganized	___:___:___:___:___	organized
6.	impractical	___:___:___:___:___	practical
7.	passive	___:___:___:___:___	active
8.	important	___:___:___:___:___	unimportant
9.	satisfying	___:___:___:___:___	disappointing
10.	unsuccessful	___:___:___:___:___	successful

Preparing Research Proposals

1.	good	___:___:___:___:___	bad
2.	useless	___:___:___:___:___	valuable
3.	stimulating	___:___:___:___:___	dull
4.	positive	___:___:___:___:___	negative
5.	unorganized	___:___:___:___:___	organized
6.	impractical	___:___:___:___:___	practical
7.	passive	___:___:___:___:___	active
8.	important	___:___:___:___:___	unimportant
9.	satisfying	___:___:___:___:___	disappointing
10.	unsuccessful	___:___:___:___:___	successful

Eleven Week Summer Session

1.	good	___:___:___:___:___	bad
2.	useless	___:___:___:___:___	valuable
3.	stimulating	___:___:___:___:___	dull
4.	positive	___:___:___:___:___	negative
5.	unorganized	___:___:___:___:___	organized
6.	impractical	___:___:___:___:___	practical
7.	passive	___:___:___:___:___	active
8.	important	___:___:___:___:___	unimportant
9.	satisfying	___:___:___:___:___	disappointing
10.	unsuccessful	___:___:___:___:___	successful

Saturday Seminars

1.	good	___:___:___:___:___	bad
2.	useless	___:___:___:___:___	valuable
3.	stimulating	___:___:___:___:___	dull
4.	positive	___:___:___:___:___	negative
5.	unorganized	___:___:___:___:___	organized
6.	impractical	___:___:___:___:___	practical
7.	passive	___:___:___:___:___	active
8.	important	___:___:___:___:___	unimportant
9.	satisfying	___:___:___:___:___	disappointing
10.	unsuccessful	___:___:___:___:___	successful

PRE

Research Apprenticeship Work

1.	good	___:___:___:___:___	bad
2.	useless	___:___:___:___:___	valuable
3.	stimulating	___:___:___:___:___	dull
4.	positive	___:___:___:___:___	negative
5.	unorganized	___:___:___:___:___	organized
6.	impractical	___:___:___:___:___	practical
7.	passive	___:___:___:___:___	active
8.	important	___:___:___:___:___	unimportant
9.	satisfying	___:___:___:___:___	disappointing
10.	unsuccessful	___:___:___:___:___	successful

Field Trips

1.	good	___:___:___:___:___	bad
2.	useless	___:___:___:___:___	valuable
3.	stimulating	___:___:___:___:___	dull
4.	positive	___:___:___:___:___	negative
5.	unorganized	___:___:___:___:___	organized
6.	impractical	___:___:___:___:___	practical
7.	passive	___:___:___:___:___	active
8.	important	___:___:___:___:___	unimportant
9.	satisfying	___:___:___:___:___	disappointing
10.	unsuccessful	___:___:___:___:___	successful

PRE

"Content" of the Program

1.	good	___:___:___:___:___	bad
2.	useless	___:___:___:___:___	valuable
3.	stimulating	___:___:___:___:___	dull
4.	positive	___:___:___:___:___	negative
5.	unorganized	___:___:___:___:___	organized
6.	impractical	___:___:___:___:___	practical
7.	passive	___:___:___:___:___	active
8.	important	___:___:___:___:___	unimportant
9.	satisfying	___:___:___:___:___	disappointing
10.	unsuccessful	___:___:___:___:___	successful

The Overall Program

1.	good	___:___:___:___:___	bad
2.	useless	___:___:___:___:___	valuable
3.	stimulating	___:___:___:___:___	dull
4.	positive	___:___:___:___:___	negative
5.	unorganized	___:___:___:___:___	organized
6.	impractical	___:___:___:___:___	practical
7.	passive	___:___:___:___:___	active
8.	important	___:___:___:___:___	unimportant
9.	satisfying	___:___:___:___:___	disappointing
10.	unsuccessful	___:___:___:___:___	successful